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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/821,326	04/09/2004	Robert M. Leach	38184.03402US	9700
38647 7590 02/26/2009 MILBANK, TWEED, HADLEY & MCCLOY LLP INTERNATIONAL SQUARE BUILDING			EXAMINER	
			BROWN, COURTNEY A	
	1850 K STRET, N.W., SUITE 1100 WASHINGTON, DC 20006		ART UNIT	PAPER NUMBER
			1616	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)		
	10/821,326	LEACH ET AL.		
Office Action Summary	Examiner	Art Unit		
	COURTNEY BROWN	1616		
The MAILING DATE of this communication app Period for Reply	ears on the cover sheet with the c	orrespondence address		
A SHORTENED STATUTORY PERIOD FOR REPLY WHICHEVER IS LONGER, FROM THE MAILING DA - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication. - If NO period for reply is specified above, the maximum statutory period w - Failure to reply within the set or extended period for reply will, by statute, Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).	ATE OF THIS COMMUNICATION 36(a). In no event, however, may a reply be tim vill apply and will expire SIX (6) MONTHS from cause the application to become ABANDONEI	lely filed the mailing date of this communication. (35 U.S.C. § 133).		
Status				
Responsive to communication(s) filed on <u>24 Octoor</u> This action is FINAL. 2b) ☑ This Since this application is in condition for alloward closed in accordance with the practice under Experimental Experiments.	action is non-final. nce except for formal matters, pro			
Disposition of Claims				
4) ⊠ Claim(s) 23,29,31,96-99,106-111,114-118,121 4a) Of the above claim(s) is/are withdraw 5) □ Claim(s) is/are allowed. 6) ⊠ Claim(s) 23,29,31,96-99,106-111,114-118,121 7) □ Claim(s) is/are objected to. 8) □ Claim(s) are subject to restriction and/or	vn from consideration. <u>,122,and 129-153</u> is/are rejected.			
Application Papers				
9) The specification is objected to by the Examiner 10) The drawing(s) filed on is/are: a) access Applicant may not request that any objection to the of Replacement drawing sheet(s) including the correction of the original original contents are considered to by the Examiner of the contents are considered to by the Examiner of the contents are considered to by the Examiner of the contents o	epted or b) \square objected to by the Edrawing(s) be held in abeyance. See ion is required if the drawing(s) is obj	e 37 CFR 1.85(a). ected to. See 37 CFR 1.121(d).		
Priority under 35 U.S.C. § 119				
 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of: 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No. 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. 				
Attachment(s) 1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date	4) Interview Summary Paper No(s)/Mail Da 5) Notice of Informal P 6) Other:	ite		

DETAILED ACTION

Acknowledgement of Receipt/Status of Claims

This Office Action is in response to the amendment filed October 24, 2008.

Claims 23, 29, 31, 96-99,106-111,114-118,121,122, and 129-153 are pending in the application. Claims 1-22, 24-28, 30, 32-95,100-105,112-113,119-120, and 123-128 have been cancelled. Claims 23, 29, 31, 96-99,106, 108-110,115,116,118,122,129,130, 133,134, 137,138,141, and 142 have been amended. Claims 145-153 are newly added. Claims 23, 29, 31, 96-99, 106-111, 114-118, 121, 122, and 129-153 are being examined for patentability.

Rejections not reiterated from the previous Office Action are hereby withdrawn.

The following rejections and/or objections are either reiterated or newly applied. They constitute the complete set of rejections and/or objections presently being applied to the instant application.

Double Patenting Rejections

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422

F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

1. Claims 23, 29, 31, and 96-99 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 11, 12, and 20 of copending Application No. 11/299,522 in view of Heuer et al. (US Patent 5,874,025).

Copending '522 claims 11, 12 and 20 claim the same method as instant claim 23 except the instant claims require that the inorganic biocide is a copper compound. However, Heuer et al. teach the use of copper compounds as the inorganic biocide component in wood preservative compositions. One of ordinary skill would have been motivated at the time of the instant invention to make this combination in order to receive the expected benefit of protecting the wood material from biological infestation and growth through the use of a copper inorganic biocide. Further, the use of copper compounds as inorganic biocides in wood preservative compositions is common to one of ordinary skill in the art. From this extensive overlap of subject matter, one of ordinary skill in the art would recognize that the same product is taught in the copending application.

This is a <u>provisional</u> obviousness-type double patenting rejection.

2. Claims 23, 29, 31, and 96-99 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 12-15 and 17-20 of copending Application No. 11/250,312 in view of Iwasaki et al. (US Patent 4,663,364).

Copending '312 claims 12-15 and 17-20 claims the same method as instant claim 23 which is drawn to a method for preserving/fabricating a wood product by treating it with a composition comprising a copper bearing inorganic biocide and an organic biocide selected from the group consisting of azoles. The only difference is that the instant application requires the use of micronized particles. Iwasaki et al. teach a biocidal powder having a notably reinforced biological effect contains at least 50 wt % of particles having diameter of 0.5 micron or less. Iwasaki et al. teach a suspension containing said powder which is applicable to germicides, herbicides, insecticides, and miticides (abstract). From this extensive overlap of subject matter, one of ordinary skill in the art would recognize that the same product is taught in the copending application.

This is a <u>provisional</u> obviousness-type double patenting rejection.

3. Claims 23, 29, 31, and 96-99 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1 and 4-13 of copending Application No. 11/471,763.

Copending '763 claims 1 and 4-13 recite the same method as instant claims 23-48 which are drawn to a method of preserving wood comprising the use of micronized organic and inorganic biocides and specific dispersing agents. From this extensive

overlap of subject matter, one of ordinary skill in the art would recognize that the same product is taught in the copending application.

This is a provisional obviousness-type double patenting rejection.

4. Claims 23, 29, 31, and 96-99 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 6 and 9-13 of copending Application No. 11/849082.

Copending '082 claims 6 and 9-13 recite the same method as instant claims 23-48 which are drawn to a method of preserving wood comprising the use of micronized organic and inorganic particle and specific dispersing agents. The difference between the invention of the instant application and that of '082 is that the instant invention does not require the use of a micronized zinc compound component. It would be obvious to one of ordinary skill in the art to not use a micronized zinc compound component depending on the intended use of the wood preservative composition. From this extensive overlap of subject matter, one of ordinary skill in the art would recognize that the same product is taught in the copending application.

From this extensive overlap of subject matter, one of ordinary skill in the art would recognize that the same product is taught in the copending application.

This is a <u>provisional</u> obviousness-type double patenting rejection.

5. Claims 23, 29, 31, and 96-99 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 9, 13-15, 17 and 23-24 of copending Application No. 11/126,839.

Copending "839 claims 9, 13-15, 17 and 23-24 claims the same method as instant claim 23 except the instant claims do not require the use of micronized pigment particles. It would be obvious to one of ordinary skill in the art to use micronized pigment particles to provide color to the wood product being treated. From this extensive overlap of subject matter, one of ordinary skill in the art would recognize that the same product is taught in the copending application.

This is a provisional obviousness-type double patenting rejection.

6. Claims 23, 29, 31, and 96-99 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 11-23 of copending Application No. 11/116152.

Copending "152 claims 11-23 claims the same method as instant claim 23 except the instant claims require using agents selected from emulsifying agents, water repellants, and UV stabilizers and a pressure processes for impregnating wood. From this extensive overlap of subject matter, one of ordinary skill in the art would recognize that the same product is taught in the copending application.

This is a <u>provisional</u> obviousness-type double patenting rejection.

7. Claims 23, 29, 31, and 96-99 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 11-23 of copending Application No. 11/526,765.

Copending "765 claims 12-15 and 17-20 claims the same method as instant claim 23 which is drawn to a method for preserving/fabricating a wood product by treating it with a composition comprising a copper bearing inorganic biocide and an organic biocide selected from the group consisting of azoles. The only difference is that the instant application does not require the use of a specific dispersing agent. One of ordinary skill in the art would be motivated not to use a dispersing agent because Dispersing agents are used to stabilize micronized particles during storage and the composition of the instant application may not need to be stored. From this extensive overlap of subject matter, one of ordinary skill in the art would recognize that the same product is taught in the copending application.

This is a <u>provisional</u> obviousness-type double patenting rejection.

8. Claims 23, 29, 31, and 96-99 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 54-74 of copending Application No. 12/125166.

Copending "166 claims 54-74 recite the same method as instant claim 23 which are drawn to a method of preserving wood comprising the use of micronized organic and inorganic biocides. From this extensive overlap of subject matter, one of ordinary

skill in the art would recognize that the same product is taught in the copending application.

This is a provisional obviousness-type double patenting rejection.

9. Claims 23, 29, 31, and 96-99 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 54-74 of copending Application No. 12/135167.

Copending "167 claims 54-74 recite the same method as instant claims 23 which are drawn to a method of preserving wood comprising the use of micronized organic and inorganic biocides. From this extensive overlap of subject matter, one of ordinary skill in the art would recognize that the same product is taught in the copending application.

This is a <u>provisional</u> obviousness-type double patenting rejection.

10. Claims 23, 29, 31, and 96-99 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 23-48 of copending Application No. 12/071707.

Copending "707 claims 23-48 recite the same method as instant claim 23 which are drawn to a method of preserving wood comprising the use of micronized organic and inorganic biocides. From this extensive overlap of subject matter, one of ordinary

skill in the art would recognize that the same product is taught in the copending application.

This is a provisional obviousness-type double patenting rejection.

11. Claims 23, 29, 31, and 96-99 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 25-32 of copending Application No. 12/073452.

Copending "452 claims 25-32 recite the same method as instant claims 23-48, 57, and 96-105 which are drawn to a method of preserving wood comprising the use of micronized organic and inorganic biocides. From this extensive overlap of subject matter, one of ordinary skill in the art would recognize that the same product is taught in the copending application.

This is a provisional obviousness-type double patenting rejection.

12. Claim 23 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 57, 59, and 61 of copending Application No. 12/213529 in view of Iwasaki et al. (US Patent 4,663,364)

Copending claims 57, 59, and 61 and instant claim 23 claims the same except the instant claims require the use of dispersion in water. However, Iwasaki et al. teach that a dispersion liquid containing a biocidal powder has a remarkably improved dispersion stability as compared to the conventional dispersion liquid containing a biocidal substance of large particle diameter and said dispersion

liquid can be very advantageously used as an agricultural agent because of having a higher biological effect than the conventional dispersion liquid containing a biocidal substance (column 5, lines 11-24). From this extensive overlap of subject matter, one of ordinary skill in the art would recognize that the same product is taught in the copending application.

This is a <u>provisional</u> obviousness-type double patenting rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

- 1. Determining the scope and contents of the prior art.
- 2. Ascertaining the differences between the prior art and the claims at issue.
- 3. Resolving the level of ordinary skill in the pertinent art.
- 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 22, 23, 25-29, 31, 35-37, 69-99, 106-111, 114-118, 121, 122, and 129-144 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iwasaki et al. (US Patent 4,663,364) and Heuer et al. (US Patent 5,874,025) in view of Walker (US Patent 5,438,034).

Applicant's Invention

Applicant claims a method for preserving a wood product comprising the step of contacting the product with a wood preservative composition comprising: (a) a dispersion in water of micronized particles of basic copper carbonate copper carbonate or copper hydroxide between 0.001 and 25 microns; and (b) one or more organic biocides selected from the group consisting of tebuconazole, alkyldimethylbenzylammonium chloride, dimethyldidecylammonium chloride, dimethyldidecylammonium bicarbonate.

Determination of the scope and the content of the prior art (MPEP 2141.01)

Iwasaki et al. teach a biocidal powder having notably reinforced biological effect wherein at least 50 wt % of particles have diameter of 0.5 micron or less. lwasaki et al. teach a suspension containing said powder which is applicable to germicides, herbicides, insecticides, and miticides (abstract). Iwasaki et al. teach that said biocidal fine powder as the active agent enables a suspension for agricultural use to be produced which has both a high biological effect and prolonged stability (column 1, lines 44-48). Iwasaki et al. teach that the biocidal substance usable as said biocidal powder is insoluble in water and includes any biocidal agent which is solid or pasty at room temperature (column 2, lines 5-7). Iwasaki et al. teach that any biocidal agent when pulverized by means of a sand mill (column 3, lines 11-32) comes to have an excellent biological effect. Iwasaki et al. teach that it is possible to prepare the above biocidal substance by combining at least two biocidal agents having different structures (column 3, lines 5-14). Iwasaki et al. teach the use of the following germicides, herbicides, insecticides and miticides or tickicides are listed as water-insoluble biocidal agents which are solid or pasty at ordinary temperature: Germicides: Copper agents; organotin agents; organic arsenical agents; organosulfur agents including sulfur, Dithane (zinc ethylenebis(dithio-carbamate)) and Thiuram (bis(dimethylthiocarbamoyl)disulfite); organochlorine agents including Daconil (tetrachloroisophthalonitrile) and Rabcide (4,5,6,7-tetrachlorophthalide); and

other agents such as Captan (N-(trichloromethylthio)-4-cyclohexene-1,2-dicarboximide),
Difoltan (N-1,1,2,2,-tetrachloroethylthio-4-cyclohexene-1,2-dicarboximide), Acricid
(2-sec-butyl-4,6-dinitrophenyl 3-methylcrotonate), Topsin M (dimethyl
4, 4'-o-phenylene-3, 3'-dithiodiallophanate), Benlate (methyl-1-(butylcarbamoyl)-2benzimidazole carbamate) and Tachigaren (3-hydroxy-5-methylisoxazole) (column 2,
lines 14-61). Iwasaki et al. additionally teach that a dispersion
liquid containing said biocidal powder has a remarkably improved dispersion
stability as compared to the conventional dispersion liquid containing a
biocidal substance of large particle diameter and said dispersion
liquid can be very advantageously used as an agricultural
agent because of having a higher biological effect than the conventional
dispersion liquid containing a biocidal substance (column 5, lines 11-24).

lwasaki et al. do not teach the use of the aforementioned biocidal dispersion in a wood preservative composition and does not teach specific copper compounds. For this reason the teaching of Heuer et al. is joined.

Heuer et al. teach novel wood preservatives and a method of preserving wood (see claims 5-8 of reference) comprising the use of a composition comprising an inorganic biocide such as <u>copper compounds</u>. Heuer et al. teach that said novel wood preservatives comprise <u>at least one copper compound</u>, a <u>triazole compound</u> and if appropriate an emulsifier (abstract) such as quaternary ammonium compounds (column 12, lines 26-34). Heuer et al. teach the use of copper compounds such as copper

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nitrate, copper sulfate, copper acetate, copper carbonate, copper carbonate hydroxide (column 2, lines 37-43) and an organic biocide such as tebuconazole (column 7, lines 63-65). Heuer et al. also teach that particularly effective protection of wood is achieved by industrial-scale impregnating processes, for example vacuum, double-vacuum or pressure processes (column 18, lines 42-45).

Ascertainment of the difference between the prior art and the claims (MPEP 2141.02)

The difference between the invention of the instant application and that of lwakaki et al. and Heuer et al. is that the instant invention requires the use of didecyldimethylammonium carbonate and didecyldimethylammonium bicarbonate. For this reason, the teaching of Walker is joined.

Walker teaches the use of didecyldimethylammonium carbonate as a preferred carbonate quaternary compound for use as wood preservatives (column 5, lines 15-31). Walker also teaches the use of didecyldimethylammonium bicarbonate in a wood preservative composition (see reference claim 2).

Finding of prima facie obviousness

Rationale and Motivation (MPEP 2142-2143)

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It would have been obvious to one having ordinary skill in the art at the time of the invention to have combined the teachings of cited references to devise a method for preserving wood and a wood product. Iwasaki et al. teach that a dispersion liquid containing said biocidal powder has a remarkably improved dispersion stability as compared to the conventional dispersion liquid containing a biocidal substance of large particle diameter can be very advantageously used as an agricultural agent because of having a higher biological effect than the conventional dispersion liquid containing a biocidal substance (column 5, lines 11-24). Heuer et al. teach the use of at least one copper compound, a triazole compound, and quaternary ammonium compounds in a composition used for preserving wood products. It would have been obvious to one of ordinary skill to have used the actives taught by Heuer et al. in a dispersion composition as taught by Iwasaki et al. using the specific quaternary compounds taught by Walker. One would be motivated to make this combination in order to receive the expected benefit of using a wood preservative composition that comprises carbonate quaternary compounds that possess thermal stability (Walker, column 5, lines 37-40).

Additionally, it is routine optimization for one of ordinary skill in the art to adjust the amount of ingredients to optimize the desired results. In this case the percentages of the organic/inorganic biocides are routine optimization.

Response to Arguments

Applicant's arguments, filed October 24, 2008, in reference to the rejection of claims 22,23,25-29,31,35-37,69-99,106-111,114-118,121,122, and 129-144 under 35 U.S.C. 103(a) as being unpatentable over Heuer et al. (US Patent 5,874,025) in view of Laks et al.(US Patent Application 2002/0051892 A1) and Walker (US Patent 5,438,034) have been considered but are moot in view of the new ground(s) of rejection.

Claims 116,122,130-132,134-136,138-140,142-144, and 149-153 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iwasaki et al. and Heuer et al. (US Patent 5,874,025) in view of Nicholas et al. (US Patent 5,462,589).

Applicant's Invention

Applicant claims a method for preserving a wood product comprising the steps of contacting a wood preservative composition comprising a milled carbonate with a particle size of between 0.05 to 1 micron wherein said treatment produces a uniform distribution of copper throughout the wood product wherein after the contacting step, said wood product is resistant to decay and insect attack.

Determination of the scope and the content of the prior art (MPEP 2141.01)

The teachings of Iwasaki et al. and Heuer et al. is discussed above and hereby incorporated by reference.

Ascertainment of the difference between the prior art and the claims (MPEP 2141.02)

The difference between the invention of the instant application and that of lwasaki et al. and Heuer et al. is that the instant invention requires that treatment of the wood product with the claimed wood preservative composition produces a uniform distribution of copper throughout the wood product that is resistant to decay and insect attack as opposed to just penetrating the wood product and protecting it from fungus attack. For this reason, the teaching of Nicholas et al. is joined.

Nicholas et al. teach the use of synergistic biocidal compositions that combines a copper salt and an organic biocide (abstract) for protection of wood against insects (column 2, lines 62-end) and decay (column 5, lines 41-45) and providing uniform distribution (column 11, lines 1-6).

Finding of prima facie obviousness

Rationale and Motivation (MPEP 2142-2143)

It would have been obvious to one having ordinary skill in the art at the time of the invention to combine the teachings of cited references to devise a method for preserving wood and a wood product. One would be motivated to make this combination in order to receive the expected benefit of a dispersion liquid containing a biocidal powder that has a remarkably improved dispersion stability as compared to the conventional dispersion liquid containing a biocidal substance of large particle diameter

(column 5, lines 11-24 of lwasaki et al.) which will inherently provide uniform distribution and a wood product that is resistant to decay and insect attack.

Additionally, it is routine optimization for one of ordinary skill in the art to adjust the amount of ingredients to optimize the desired results. In this case the percentages of the organic/inorganic biocides are routine optimization.

Examiner's Response to Applicant's Remarks

Applicant's arguments, filed October 24, 2008, in reference to the rejection of claims 116,122,130-132,134-136,138-140, and 142-144 under 35 U.S.C. 103(a) as being unpatentable over Iwasaki et al. and Heuer et al. (US Patent 5,874,025) in view of Nicholas et al. (US Patent 5,462,589 have been considered but are <u>moot</u> in view of the new ground(s) of rejection.

The claims remain rejected.

Conclusion

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR Only. For more information about the PAIR system, see http://pair-direct.uspto.gov.

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Should you have questions on access to the Private PAIR system, contact the Electron

Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Examiner Courtney Brown, whose telephone number is

571-270-3284. The examiner can normally be reached on Monday-Friday from 8 am

to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

Supervisor, Johann Richter can be reached on 571-272-0646. The fax phone number

for the organization where this application or proceeding is assigned is 571-273-8300.

Courtney A. Brown Patent Examiner Technology Center1600 Group Art Unit 1616

> /Mina Haghighatian/ Primary Examiner, Art Unit 1616